

Rensselaer & Saratoga Railroad
Green Island Shops
West Side of Delaware & Hudson
Railroad Tracks; 500 feet N.
of Tibbitts Avenue
Green Island, Albany County,
New York

HAER No. NY-15

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PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Office of Archeology and Historic Preservation
National Park Service
U.S. Department of the Interior
Washington, D.C. 20240

Location: West side of Delaware and Hudson Railroad tracks;
500 feet N. of Tibbitts Avenue
Green Island, Albany County, New York
Latitude: 42° 45' 00" N. Longitude: 73° 41' 00" W.

Dates of Erection: 1871-1872

Designer: Unknown

Present Owners: John J. Ryan and Sons, Inc., owner of buildings
Delaware and Hudson Railroad, owner of land

Present Occupant: John J. Ryan and Sons, Inc., Waste Dealers

Present Use: Warehouse

Significance: An early railroad shop and building of typical heavy-timber and brick construction.

PART I. HISTORICAL INFORMATION

A. Physical History:

Green Island is located at the confluence of the Mohawk and Hudson Rivers due west of the city of Troy. It was connected both to Troy and to more islands at the north of Waterford by bridges constructed in 1835 by the Rensselaer and Saratoga Railroad Company. LeGrand B. Cannon, who owned much of Green Island, was active in the management of the R&S. In December 1868, the railroad purchased more than 21 acres of the north central portion of the island from Cannon as a site for extensive locomotive repair and car-building and repair shops.

Begun in 1871, according to the builder's stone on the south face of the main building, the Rensselaer & Saratoga's Green Island Shops were completed the following year. By that time the company had been leased in perpetuity to the Delaware & Hudson Canal Company. (All R&S properties have subsequently been operated by the D&H, although the charter of the Rensselaer & Saratoga extends to January 1, 2500.)

The Delaware & Hudson soon launched an ambitious expansion program, only slightly curtailed by the Panic of 1873. Heavy repairs and rebuilding of steam locomotives were carried on there, with this type of work for the railroad's tri-state system being equally divided among shops at Green Island, Oneonta, N.Y. and Carbondale, Pa.

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For forty years the Green Island Shops were a hive of activity, engaged in heavy industrial work. The majority of D&H locomotives were in work there at one time or another; the jobs ranging from simple repairs or paint to major overhaul and re-design.

Locomotive work was discontinued in 1912, when all D&H locomotive buildings and repair was concentrated at new shops at near-by Colonie, N. Y. The Green Island plant continued in operation, however, into the late 1930s, devoted to the building of the D&H's wooden freight cars, as well as repair and light work on other freight equipment.

Portions of the property were sold for industrial and private use in 1940. Since that period, the remaining buildings have stood idle or have been used for storage purposes.

The shops, as they were indicated on the Sanborn Insurance Map of 1875, consisted of three separate brick buildings extending northward along the Rensselaer & Saratoga's Troy to Waterford line.

First was the main Machine Shop, with office at the center on the east side. The large (32 feet to the eaves) southern section housed the five-bay locomotive shop on the first floor. The second story was used for wood work and pattern storage. The central section (18 feet to the eaves) was devoted to machinery, with the blacksmith shop at the north end.

Immediately west of this building were a 50 foot brick-enclosed water tank of 51,819-gallon capacity, a stone cistern, a boiler room with two boilers totalling 175 horsepower and a 110 horsepower engine, capped by a 120 foot chimney, and various sheds.

Southwest of the main building was a turntable, serving an eight-stall roundhouse, built in the form of a segment of concentric circles, with a single sloped roof.

To the northwest stood the Paint Shop, which was twenty feet to the eaves and contained as well the boiler shop and storage for hardware. Other nearby buildings included a two-story sand shed; a combined oil, varnish and waste room; and a large frame, circular privy.

The next principal building was the car shops, located next to an old roundhouse north along the track side. A one-story section used for sawing and planing came first, and then a two-story erecting shop, with sawing and turning on the second floor and storage in the loft under the roof. This section apparently was similar in character to the existing locomotive shop.

A third one-story building 230 feet long stood approximately 450 feet further north. This was the car storehouse. Adjacent

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to this on the east were various lumber sheds, storage for castings, and a coal pile.

The shops were heated by stoves mounted on brick and iron bases and burning wood shavings and coal. Light was furnished by kerosene lamps. A work force of 75 to 125 men worked six days a week, with three night watchmen and one Sunday watchman.

According to the data on the Sanborn map, the three-story, five-bay locomotive shop and machine-forge shop, which is still standing, was originally separate. It is now connected with the one-story section of the former car shop. The connection was made between 1885 and 1903. Adjacent are the wooden roundhouse, brick water-tower base, boiler room, etc. The paint shop of 1872 burned on 23 January 1904 and its site is occupied today by a more recent structure used for storage.

N.B.: The R&S shop site should not be confused with the site of the Eaton, Gilbert and Company (later Gilbert Car Manufacturing Company) works on Green Island. That plant stood at George and Clinton Streets, six blocks to the south. Gilbert and Company, which operated on Green Island from 1852 to 1893, was an early and well-known builder of coaches, railroad cars, omnibuses, streetcars, and Civil War gun carriages.

B. Sources of Information:

1. Bibliography:

A Century of Progress: A History of the Delaware and Hudson Company 1823-1923. Albany: J. B. Lyon Co., Printers, 1925.

Delaware and Hudson Company. Inspection of Lines. 1928.

Howell, George Rodgers, ed. Bi-centennial History of Albany: History of the County of Albany, N. Y., 1609 - 1886. New York: W. W. Munsell & Co., 1886.

Shaughnessy, Jim. Delaware & Hudson--The History of an Important Railroad Whose Antecedent Was a Canal Network to Transport Coal. Berkeley, California: Howell-North Books, 1967.

Weise, Arthur James. City of Troy and its Vicinity. Troy: E. Green, 1886.

Troy's One Hundred Years 1789-1889.
Troy: W. H. Young, 1891.

2. Maps:

Map of the City of Troy, New York. Troy: William H. Young and Blake, 1873.

Insurance Maps of the City of Troy, N.Y. including West Troy and Green Island. New York: D. A. Sanborn, 1875.

Troy, Including West Troy and Green Island, N.Y. New York: Sanborn Map & Publishing Co., 1885.

Map(s) of Troy, also West Troy and Green Island. Sampson, Murdock & Co., 1889-1935.

Insurance Maps of Troy, Rensselaer County, including Green Island and Watervliet, Albany County, N.Y., 1903. New York: Sanborn Map Co., 1904.

Troy, N.Y., 1955. New York: Sanborn Map Co., 1955.

Additional records and maps on file at Albany County Clerk's Office, Albany, N.Y.

Prepared by Richard S. Allen
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September 1969

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PART II. ARCHITECTURAL INFORMATION

A. General Statement

1. Architectural character: The R&S Shops are representative of railroad repair facilities of period, designed for work on both locomotives and cars. The single surviving shop building is of brick and heavy-timber construction throughout. The principal block, on the south, is multi-story, the high ground story for accomodating the locomotives in work and the upper stories for light work on the wooden cabs and other small components. The single-story shop to the north housed the larger machine tools, the forge, and the other heavy metal-working operations that required foundation on grade.

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A single-story brick ell with pitched roof and a one-bay lean-to addition on its north side joins the north section of the building perpendicularly on its west face, just north of the brick watertower base. This was the boiler and engine house, and is original construction.

2. Condition of fabric: Good

B. Description of Exterior:

1. Over-all dimensions: The rectangular building is approximately 80 feet by 400 feet. The south portion, about 80 feet long, is five bays wide by six; the north portion, about 320 feet long, is three bays by twenty nine.

2. Foundation: Cut stone, probably limestone.

3. Wall construction, finish, and color: Red brick bearing wall construction. The interior is painted, but the exterior is unfinished.

4. Structural system: The heavy-timber roof trusses of the north section bear on the brick exterior walls and interior posts of wood. There are wrought-iron rods in roof trussing. Purlins and roof sheathing are wood. In the south part, the timber framing is supported by cast-iron columns and bearing piers in the exterior walls.

5. Chimneys: Two brick chimneys at south front; miscellaneous brick chimneys on north portion.

6. Openings:

a. Doors and doorways: At the south end are five wooden panelled double locomotive doors.

b. Windows: The windows on the south face are boarded over. On the west side, they are wood, double hung with 12-over-12 sash. All openings are segmentally arched.

7. Roof:

a. Shape, Covering: The north section has a gable roof with full-length high glazed monitor and slate and asphalt shingles. The south portion has a slated double-pitch roof best described as gambrel-Mansard, having shallow dormers in the steep-pitched lower section.

b. Cornice, Eaves: Brick cornice; galvanized metal eaves.

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C. Description of Interior:

1. Floor plans: All three floors and the loft of the south section as well as the first floor of the north section are large open spaces interrupted only by columns.
2. Stairways: In the south part there are wooden stairs in a straight, single run from floor to floor.
3. Flooring: The first floor is concrete; the upper three floors of the south end are wood.

D. Site:

1. General setting: The building is situated on a north to south axis in a completely flat, moderately industrial area. Adjacent to it on the east is a large, modern Ford assembly plant.
2. Outbuilding: A three-story, octagonal brick base for a water tower stands just west of the south front. The tank itself no longer remains.

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The following site plans are available through the Map Division of the Library of Congress, Washington, D.C. (Division located temporarily in Alexandria, Virginia):

Map of the City of Troy, New York.
Troy: William H. Young and Blake,
1873.

Site plan, earliest known representation of shops.

Map of Troy, Including West Troy and Green Island, N.Y. New York: Sanborn Map & Publishing Co., 1885 (vol. 2, plate 55).

Site plan showing various auxiliary buildings; original shop structures unchanged.

Insurance Maps of Troy, Rensselaer County, including Green Island and Watervliet, Albany County, N.Y.
New York: Sanborn Map Co., 1904 (vol. 1, plate 63).

Site plan showing the joining of locomotive and car shops, forming a single structure, 750 feet long.

PART III. PROJECT INFORMATION

These records were prepared as part of the Mohawk-Hudson Area Survey, a pilot study for the Historic American Engineering Record which was established in 1969 under the aegis of the Historic American Buildings Survey. The project was sponsored jointly by the National Park Service (Historic American Buildings Survey), the Smithsonian Institution (National Museum of History and Technology), the American Society of Civil Engineers (National Headquarters and Mohawk-Hudson Section), and the New York State Historic Trust. The field work and historical research were conducted under the general direction of Robert M. Vogel, Curator of Mechanical and Civil Engineering, Smithsonian Institution; James C. Massey, Chief, Historic American Buildings Survey; and Richard J. Pollak, Professor of Architecture, Ball State University, Project Supervisor; and with the cooperation of the Department of Architecture, Rensselaer Polytechnic Institute.